

Remarks

The above amendment is made to more clearly define the claimed invention and to obviate the 35 U.S.C. § 112, second paragraph rejection of claim 7. The amendment is well-supported by the specification (e.g., page 11, lines 17-18; page 16, lines 11-16), and Applicants respectfully request entry of the amendment without prejudice.

The Office Action rejects claims 1-16 under the judicially-created doctrine of obviousness-type double patenting as unpatentable over claims 1-12 of Serial No. 09/566,034. Although Applicants disagree with the conclusion of obviousness, a terminal disclaimer is submitted herewith in order to expedite prosecution of this application by obviating the rejection.

The Office Action rejects claims 1-16 under 35 U.S.C. 103(a) as unpatentable over Serial No. 09/566,034. Although applicants disagree with the conclusion of obviousness, copies of the recorded assignments of both applications to Honeywell International Inc. are submitted herewith in order to expedite prosecution of this application by obviating the rejection under 35 U.S.C. § 103(c). Applicants note that both applications were filed after November 29, 1999.

The Office Action rejects claims 7-10 under 35 U.S.C. § 112, second paragraph for use of the word "filer". This rejection is obviated by the above amendment, which replaces it with the correct word "filter".

The Office Action rejects claims 13-16 under 35 U.S.C. § 112, first and second paragraphs, because the claims do not specify a physically active filter member, which the Office

Action asserts to be an essential feature of the invention. This rejection is respectfully traversed.

The application clearly discloses in originally-filed claims 13-16 and in Figure 7 that the supplemental or chemically active filter is regarded by the inventors as a distinct device, as evidenced by the separate and distinct claims directed to this device. Clearly, the inventors regard the subject matter of claims 13-16 as "their invention". The Examiner's assertion that a mechanically active filter element is required in order to practice the invention is not relevant to the issue of enablement. Many, many things are of course theoretically required in order to fully implement and practice the present invention - an engine, a source of lubricating oil for the engine, a pump for circulating the oil, etc. However, each of these elements need not be set forth in the claims. The Office Action takes the position that a mechanically active filter is needed to provide for complete oil treatment; however, since Applicants have disclosed and claimed the chemically active filter as a separate and distinct article of manufacture, they are entitled to claims directed to it. Since the function of the claimed chemically active supplemental filter is to chemically treat the oil, Applicants submit that claims of that scope are enabled by the specification.

The only question to be answered in determining compliance with 35 U.S.C. § 112, first paragraph, is whether Applicants have provided sufficient disclosure to enable someone to practice the invention as claimed in claims 13-16.

Applicants respectfully submit that they have provided enabling disclosure for claims 13-16 at pp. 14-16 of the application, and the Office Action does not appear to contest this.

Instead, the Office Action appears to have formed a conclusion as to what the appropriate breadth of Applicants' invention should be, and then determined that claims 13-16 are broader than that scope. This appears to be the basis of the 35 U.S.C. § 112, second paragraph rejection. However, this approach is expressly proscribed in *In re Borkowski*, 422 F.2d 904, 164 U.S.P.Q. 642 (CCPA 1970):

The examiner's approach to determining whether appellants' claims satisfy the requirements of § 112 appears to have been to study appellants' disclosure to formulate a conclusion as to what he (the examiner) regards as the broadest invention supported by the disclosure, and then to determine whether appellants' claims are broader than the examiner's conception of what "the invention" is. We cannot agree that § 112 permits of such an approach to claims. The first sentence of the second paragraph of § 112 is essentially a requirement for precision and definiteness of claim language. If the scope of subject matter embraced by a claim is clear, and if the applicant has not otherwise indicated that he intends the claim to be of a different scope, then the claim does particularly point out and distinctly claim the subject matter which the applicant regards as his invention.

The Office Action does not refer to any language in claims 13-16 that is unclear, but simply argues that the claims are indefinite because they do not include the requirement for a mechanically active filter element, which the Examiner believes should be a required part of Applicants' invention. As the claim language itself is clear and concise, Applicants

respectfully submit that the 35 U.S.C. § 112, second paragraph rejection should be withdrawn.

Applicants have clearly disclosed the supplemental or chemically active filter as a distinct article of manufacture. As such, they are entitled to claim it as their invention. Since such a chemically active filter element could readily be sold as a replacement part independent of a mechanically active filter, Applicants would be hard pressed to enforce their patent against such sales if they do not have independent claims directed to the chemically active filter. Claims of the scope of claims 13-16 are clearly enabled by the specification, and such an enabled device would perform its function of treating the oil with a pelletized basic conditioner. Applicants should not be required to include a mechanically active filter element in such claims simply because engine oil lubricating systems also benefit from mechanical filtration of the oil.

The Office Action rejects claims 1-3, 5, 6, 11, and 12 under 35 U.S.C. § 102(b) as anticipated by DeJovine, rejects claims 7-10 and 13-16 under 35 U.S.C. § 103(a) as unpatentable over DeJovine, and rejects claim 4 under 35 U.S.C. § 103(a) as unpatentable over DeJovine in view of Bilski et al. These rejections, insofar as they apply to the amended claims, are respectfully traversed.

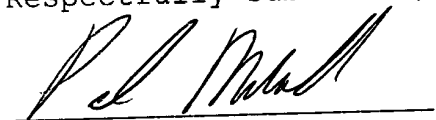
DeJovine uses particles made of smaller sub-particles and an oil-soluble polymer that dissolves over time to release the smaller particles into the engine oil. Several antioxidants are mentioned in a boilerplate recitation in column 11 of other

materials that may optionally be incorporated in these oil-soluble particles. Applicants have discovered, however, that many antioxidants can have deleterious effects on engine oil and/or engine system components if they are released in large quantities into the engine lubricating system. Accordingly, the Applicants claimed invention immobilizes the antioxidants in particles that are retained in the oil filter. The claimed invention thus 'releases' the antioxidant effect into the oil while retaining the antioxidants themselves in the oil filter, thus minimizing any deleterious effect on the engine system.

Unlike the solid sub-particles of DeJovine, which must be released to circulate in the oil system in order to achieve the desired effect, Applicants' antioxidants can have *their* desired effect while being retained in the oil filter so that the oil simply contacts the antioxidant there as it circulates. Accordingly, the Applicants' claimed invention is both novel and unobvious over the disclosure of DeJovine.

For the above reasons, Applicants respectfully submit that the application is in proper condition for allowance and request early action toward that end.

Respectfully submitted,



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January 6, 2003
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Amended Claims for Serial No. 09/867,973 with Changes Shown

1. (amended) An oil filter, comprising:

a hollow housing having an inlet and an outlet and defining a chamber therein with a flow path between the inlet and outlet;

a mechanically active filter member disposed inside the housing in the flow path; and

a chemically active filter member disposed inside the housing in the flow path;

wherein the chemically active filter member comprises a plurality of particles retained in said oil filter comprising a beneficial additive to ~~be released into~~ interact with engine oil as said engine oil circulates through the filter, said particles comprising an oil conditioning agent retained in said particles selected from the group ~~consisting~~ consisting of imidazoline-phosphonate salts, substituted triazoles, sulfurized carboxylates, phenolic compounds, arylamino compounds, substituted thiazoles, substituted thiadiazoles, phosphosulfurized olefins, zinc dithiophosphates, and zinc dialkyldithiophosphates, aromatic sulfides, aromatic polysulfides, alkyl sulfides, alkyl polysulfides, sulfurized olefins, sulfurized carboxylic acid esters, sulfurized ester-olefins, and mixtures thereof.

7. (amended) An oil filter, comprising:

a hollow housing having a tapping plate for placement proximate an engine surface, said tapping plate having an outlet aperture formed therethrough and an inlet aperture

formed therethrough and spaced apart from said outlet aperture;

a mechanically active filter element disposed within said housing spaced away from said tapping plate;

a substantially cylindrical dividing wall member disposed within said housing adjacent said tapping plate;

said dividing wall member defining an inlet flow channel on the outside thereof within the housing and in fluid communication with said inlet aperture of said tapping plate,

said dividing wall member further defining an outlet flow channel therein in fluid communication with said outlet aperture of said tapping plate; and

a chemically active filter member disposed within said inlet flow channel of said housing between said tapping plate and said mechanical ~~filter~~ filter element,

said chemically active filter member comprising a plurality of particles retained in said oil filter having a diameter in a range of 0.10 to 5 mm, said particles comprising a beneficial additive to ~~be released into~~ interact with engine oil as said engine oil circulates through the filter, said beneficial additive comprising

an oil conditioning agent, retained in said particles, selected from the group ~~consisiting~~ consisting of imidazoline-phosphonate salts, substituted triazoles, sulfurized carboxylates, phenolic compounds, arylamino compounds, substituted thiazoles, substituted thiadiazoles, phosphosulfurized olefins, zinc dithiophosphates, and zinc

dialkyldithiophosphates, aromatic sulfides, aromatic polysulfides, alkyl sulfides, alkyl polysulfides, sulfurized olefins, sulfurized carboxylic acid esters, sulfurized ester-olefins, and mixtures thereof.

11. (amended) An oil filter, comprising:

a hollow housing having an inlet and an outlet and defining a chamber therein with a flow path between the inlet and outlet;

a mechanically active filter member disposed inside the housing in the flow path; and

a chemically active filter member disposed inside the housing in the flow path;

wherein the chemically active filter member comprises a plurality of particles retained in said oil filter comprising a beneficial additive to ~~be released into~~ interact with engine oil as said engine oil circulates through the filter, said particles comprising an antioxidant retained in said particles.

13. (amended) A supplemental cartridge for use in conjunction with an oil filter, said supplemental cartridge comprising:

a hollow housing, comprising

a tapping plate for placement proximate an engine surface, said tapping plate having an outlet aperture formed substantially centrally therethrough and an inlet aperture formed therethrough and spaced apart from said outlet aperture;

a cap opposite said tapping plate for placement proximate an oil filter, said cap having an inlet aperture formed substantially centrally therethrough and an outlet aperture formed therethrough and spaced apart from said inlet aperture;

an outer wall connecting said cap and said tapping plate;

a substantially cylindrical dividing wall member disposed within said housing and separating said housing interior into an inlet flow channel in fluid communication with said inlet aperture of said tapping plate, and an outlet flow channel in fluid communication with said outlet aperture of said tapping plate; and

a chemically active filter member disposed within said inlet flow channel of said housing, said chemically active filter member comprising a plurality of particles having a diameter in a range of 0.10 to 5 mm, said particles comprising:

an oil conditioning agent, disposed in said particles so as to be retained therein when contacted with engine oil, selected from the group ~~consisting~~ consisting of imidazoline-phosphonate salts, substituted triazoles, sulfurized carboxylates, phenolic compounds, arylamino compounds, substituted thiazoles, substituted thiadiazoles, phosphosulfurized olefins, zinc dithiophosphates, and zinc dialkyldithiophosphates, aromatic sulfides, aromatic polysulfides, alkyl

sulfides, alkyl polysulfides, sulfurized olefins, sulfurized carboxylic acid esters, sulfurized ester-olefins, and mixtures thereof.